OBSERVATIONS ON THE BIRDS OF JAMAICA, WEST INDIES.

BY W. E. D. SCOTT.

II. A LIST OF THE BIRDS RECORDED FROM THE ISLAND, WITH ANNOTATIONS.

(Continued from p. 15.)

98. Colinus virginianus (Linn.). Bob-Willte. Quall. — The Quail was introduced from North America, according to Gosse (Birds of Jamaica, p. 328), about the year 1747, or nearly a hundred and fifty years ago. He says further, "It was very soon naturalized, and became abundant. It is found in almost all situations, where there is cover; and from its peculiar manners, its loud call, and the sapidity of its flesh, is familiar to all."

This was written in 1847, and many persons whom I met with while in Jamaica assured me of the great abundance of Quail until within the last two years.

During my visit to the island I did not see or hear any of these once common birds, and though in some localities, where especial attention has been paid to their protection, a few birds doubtless still exist, this bird once so plentiful must be regarded as about exterminated. I was particularly anxious to obtain a small series of the bird in question to see if any appreciable and general variation or departure from the parent stock had occurred under the new conditions of environment. However, I became aware in a very short time that it would be very difficult to get any of the birds, and so looked up what specimens existed in the museum of the Jamaica Institute. Here I found a single specimen, a female, without adequate data as to when and where it was captured, and I have been obliged up to the present time to forego the comparison which I had hoped material collected on the island would make possible. Mr. Taylor thought he would be able to procure some specimens for me, but in a recent letter dated July 3, 1891, from Kingston, he writes: "No news as yet of Colinus virginianus, though I have been constantly on the watch for and have made many inquiries respecting them." Oscar Marescaux, Esq., of Kingston told me that a single small covey still existed in the garden of his estate, Cherrygarden, near Kingston, but that these were the only ones he knew of. He said that the birds were formerly very abundant, and were hunted over the dog as they are in the United States, and that there was no difficulty in making large bags. Mr. William Bancroft Espent says in a letter dated Spring Garden, June 1, 1891, "Undoubtedly the mongoose has played havoc with the

Quail and other ground-nesting birds, but they (the Quail) are not exterminated, for I saw five Quail at Halfway Tree three weeks ago." These are the only personal records I was able to obtain, and one is of a negative nature and the other two support the story of their destruction by the mongoose. In the letter referred to Mr. Espent, in answer to my question as to where and how the mongoose was introduced, says, "I got nine, four females and five males on the 9th of March, 1873; others arrived subsequently, but I don't know how many. Mr. Morris in a pamphlet he wrote said he thought the entire mongoose population of Jamaica was due to my nine." From this it is apparent that coincident with the introduction of a few individuals of the mongoose began the disappearance of the Quail and that now, in a period of less than twenty years from the date of the introduction of a few individuals of the mongoose, the Quail, formerly very abundant, are practically exterminated from the island and no longer can be considered as a part of the bird fauna of the region.

The following notes are quoted from Mr. Taylor's manuscript records: "The once abundant Quail has become so rare that by many it is re garded as extinct. It still exists in a very few exceptionally favorable localities, and it is not unreasonable to believe that from these, also, it will ere long be extirpated. That the evil is directly traceable to the mongoose there can be but little doubt, as prior to the introduction of this animal Quail were common even in the immediate vicinity of Kingston. The habit of depositing single eggs here and there appears to be common to this genus. Several eggs have been thus found, and I have taken one from the bare ground at the roots of a tree in a wood near which the birds were calling. It must have been lying some time, as it was quite discolored where it had rested on the decaying leaves, etc."

99. Numida meleagris Linn. Guinea-fowl. — This is also an introduced species which I have no personal knowledge of, save that I was told that they had once been common and now were almost unknown on the island. According to Gosse's account, written in 1847 (Birds of Jamaica, p. 325), "it was abundant in Jamaica as a wild bird, 150 years ago, for Falconer mentions it among the wild game in his amusing 'Adventures.' I shall confine myself to a few notes of its present habits. The Guinea-fowl makes itself too familiar to the settlers by its depre dations in the provision grounds. In the cooler months of the year, they come in numerous coveys from the woods, and scattering themselves in the grounds at early dawn, scratch up the yams and cocoes." The account goes on to tell of the depredations caused by the great numbers of these birds, and various methods of getting rid of them are described and others suggested.

In contrast to all this I now quote from Mr. Taylor's manuscript notes recently sent to me from Jamaica: "Like the Quail this bird has decreased in numbers sadly, and from the same cause apparently. The

Guinea-fowl is now generally regarded as much less abundant than formerly, when large coveys were to be found in the lowlands and afforded good sport. Very recently, however, and on more than one occasion, I have met with a covey of wild birds near Kingston. At an unfrequented part of the Long Mountain Road, where perhaps not more than three or four persons pass in the course of a whole day, I twice saw a large party of these birds dusting."

roo. Columba leucocephala Linn. White-crowned Pigeon. — A common resident species in most parts of the island. At Boston it was abundant and to be seen or heard at all times of the day. Here they were associated together in pairs or in small flocks of from six to ten individuals. About the 20th of January at Boston the birds were generally mated and their constant cooing was to be heard at almost all points in the woods. Males taken about this date have the iris almost white with the faintest tinge of straw color. A female taken on February 9 had an egg in the oviduct about ready to be laid, and other females taken indicate that the birds generally are breeding or about to breed at this point.

The following are Mr. Taylor's notes: "Abundant and generally dispersed. Always to be found in the vicinity of water; the mangrove forests and woods bordering the river banks near Passage Fort were localities in which they were fairly abundant. Many nests of eggs were taken from the mangrove trees near the shore.

"Pigeon Island, a thickly wooded cay off the port of Old Harbor, takes its name from the large number of Doves that frequent it and breed there; from all accounts the Baldpate is the most numerous species. Like the other Doves they are very early breeders. More than one brood appears to be reared. Eggs may be taken as early as February."

101. Columba caribea Linn. RING-TAILED PIGEON. - In the wild and little settled portions of the parish of Portland, in the vicinity of Boston, these birds were common, but not so plentiful as C. leucocephala. Three females and a male secured at this point on January 16 were all apparently adult, but showed no signs of breeding as yet. The iris in these individuals varied from reddish orange to a deep, intense vermilion. Four birds taken at the same point on January 17 had just completed the moult, and three individuals taken later on the same day were still moulting, though the change was nearly completed. These birds do not appear to breed quite as early as the other Doves and Pigeons of the region. A pair taken February 21 at Boston were apparently mated and the female looked as if she would lay the first eggs in about two weeks. A pair taken on February 23 were about ready to breed. These birds frequent the hills back some little way and were most common at an altitude of about one to two thousand feet above the sea level. Here they feed on wild fruits and berries and become early in the year very fat, and are esteemed a great delicacy for the table. They were so common in the region spoken of that I frequently used them as food while at Boston. Mr. Taylor says that he has never had the opportunity of studying these birds in life.

102. Columba inornata Vig. BLUE PIGEON. - I did not meet with this

species while in Jamaica nor has Mr. Taylor ever seen the birds alive. Under the name of *Columba rufina* Gosse refers to this species at some length (Birds of Jamaica, p. 296). It is apparently not so abundant as it was in former years. None of the local hunters about Boston seemed to know anything about such a Pigeon, though they are familiar with the different representatives of the family that exist in the vicinity; and describe the kinds of Pigeons and Doves so that they are recognizable.

103. Zenaida zenaida (Bonap.). Zenaida Dove. Pea Dove.— A common resident species near Boston, and met with almost daily during my stay at that point. They feed generally on the ground, and are often associated with M. leucoptera. The iris is reddish orange. These birds are about the first of the Pigeons and Doves to breed. A male taken on January 6 had the testes almost fully developed, and females taken about the same time indicate the near approach of the breeding season. Subjoined are Mr. Taylor's notes. "Common in some parts. Breeds at Port Henderson among the low woods and mangroves. Eggs average smaller than those of M. leucoptera."

104. Engyptila jamaicensis (Linn.). WHITE-BELLIED PIGEON.—This was a common species in the localities frequented by C. caribea, but was by no means as abundant as that species. It is undoubtedly one of the native birds that have suffered seriously from the persecutions of the mongoose. The birds are rarely seen away from the mountains. Females taken on January 13 indicated the near approach of the breeding season. Mr. Taylor's notes are as follows: "A mountain species about whose habits I know little. The nest is said to be built chiefly in low bushes. I have not seen the eggs. The White-belly appears to be more terrestrial in its habits than any of the other Doves of Jamaica, the Ground Dove perhaps excepted."

105. Melopelia leucoptera (Linn.). WHITE-WINGED DOVE. — This was a common and conspicuous species at Boston, and more gregarious than the other Doves and Pigeons. Flocks of a dozen individuals were not at all uncommon, and on several occasions I saw flocks of as many as forty or fifty individuals. The species was represented, but was not common, at Stony Hill, and I saw the birds near Port Antonio in numbers.

Mr. Taylor's notes, which I quote, are very full in regard to these birds: "The White-wing is strictly gregarious, moving and feeding in flocks. It is especially partial to the seeds of the moringa or horseraddish-tree, and numbers are often taken in traps baited with these seeds. At the Palisades is an extensive moringa plantation where these birds are numerous at all times of the year. Next to the Ground Dove it is the most common Pigeon in the lowlands. There is one locality in Kingston where they always may be seen, and that is the woods near the sea at Belle Vue, a property nearly adjoining the Lunatic Asylum. The White-wing is partial to clumps of cactus and thorny trees such as the cashaw for nesting purposes; it also breeds in numbers among the woods and mangroves at Port Henderson and Passage Fort, and I found nests

on Lime Cay near Port Royal. Eggs vary from dull white to reddish white, and may be found between the months of February and July."

106. Columbigallina passerina (Linn.). GROUND DOVE. - Common resident species, but not reaching up in the hills above five hundred feet. The subjoined notes of Mr. Taylor's show the near affinity of the Jamaican to the North American representatives in habits. The series that was collected during my stay on the island presents a race of birds that show little individual variation, but which differ markedly from Florida individuals. Both sexes are much paler, but especially the females, and the scaled appearance of the breast is much more striking and somewhat more extended. In size the birds are smaller than Florida individuals. So far these birds seem to agree very well with the C. p. bahamensis (Mayn.), but of all the individuals before me from the Island of Jamaica, some forty-one in number, only six (all females) have dusky bills, and in thirty-five examples (about equally divided as to sex) the yellow or orange base of the bill is very conspicuous. It seems, however, with the present material, better to leave fine discriminations in this group till more individuals from different points are available. From Mr. Taylor's notes I quote as follows: "Very abundant everywhere, but especially in the beds of the gullies or dry water-courses where little companies of from two to six or eight may be found feeding at almost any time of day. Their food in such places seems to consist entirely of the minute seeds of a shrub very common in all dry places, and known to the negro boys as 'vica.' The nest is invariably built on trees, usually at a good height; materials are merely a few slight twigs arranged to form a platform, and the eggs can be nearly always seen from beneath. Often the deserted nest of some other bird is used, and I once found a Ground Dove sitting on two eggs in the nest of a Mockingbird. Another favorite site is on the top, or in the fork, of a clump of cactus, but what appears to me the most remarkable situation for a nest is where the bird took advantage of a slight depression on top of a pendent tuft of tillandsia, 'old-man's beard,' and, after adding a few bits of grass, deposited two eggs. The presence of the sitting bird alone discovered the nest. When discovered sitting, or when young are in the nest, the old birds endeavor by falling to the ground and feigning lameness to draw the intruder away from the vicinity, and the same manners are practised by the White-wing. The Ground Dove is among the earliest breeders. I have seen nearly fledged young in March and April and have taken fresh eggs as late as June and July, so that more than one brood is probably reared in a season."

107. Geotrygon montana (Linn.). Ruddy Quail-dove. Partridge Dove. Mountain Partridge. — Several times while at Stony Hill, and afterward quite commonly near Priestman's River, I met with this species. Adults taken on January 24 had just completed the moult. At the same time the testes in the males were large, but not fully developed to the size assumed during the breeding season. Males taken February 7 had the testes fully developed. By February 20 the birds were breeding,

From Mr. Taylor's notes I quote, and I fully agree with him, that this is one of the species that has become appreciably rarer through the influence of the mongoose. "I can give little or no information concerning the habits of the 'Partridge,' as I have never met with it near Kingston. The nest is often so slight and flimsy a structure as scarcely to suffice for the reception of the eggs, two in number, which are regularly oval and vary from pale to deep buff. This bird seems to prefer to nest in low bushes, and is reported to have suffered from the depredations of the mongoose."

108. Geotrygon crista (Temm.). Blue Dove. Mountain-witch.— During my stay at Priestman's River I received two specimens of this bird, and knew of one other that was killed during that time. The birds are apparently very rare, though formerly common, and, it seems probable, are becoming rapidly exterminated by the mongoose. The first specimen, procured on January 7, had not quite finished the moult. It was a male, and showed no signs of the approach of the breeding season. A second male was taken on February 14 and had fully moulted, though the breeding season seems at least a month later than with the other Doves and Pigeons. The birds are shy, and frequent the dense woods, most of the time being spent on the ground.

I quote from Mr. Taylor: "The Blue Dove is so exclusively a mountain bird that I have had no opportunity of observing it alive. It is reputed rare, and even extinct in some parts, but this scarcity must be more apparent than real, since the habits of the bird are so solitary and retiring."

There are no recent records of this species from the island. From the 'Birds of Jamaica,' Gosse, p. 324, I quote: "The Spanish Partridge (Starnænas cyanocephala) is not considered as indigenous in Jamaica, though it is frequently imported thither from Cuba. It may, however, yet be found in the precipitous woods of the north side; Albin, Brisson, Buffon, and Temminek, attribute it positively to our island."

During my stay at Priestman's River I was frequently told of a kind of Pigeon, locally known as the 'Red-neck.' The bird is described as a large Pigeon, larger than the 'Ring-tailed Pigeon,' and as being a tree Pigeon. At the same time its present great rarity is attributed to the mongoose's depredations. The bird was described to me by all the local gunners and hunters, and there can be little doubt of the existence of a Pigeon not obtained so far by naturalists who have worked on the island. Gosse (Birds of Jamaica, p. 324) refers to what appears to be this same bird under the name of "Red-necked Dove."

Mr. Taylor sends me the following note: "Turtur risoria is a common cage-bird in Jamaica, but I know of no instance in which it has been seen or taken in a wild state on the island."

110. Cathartes aura (*Linn*.). Turkey Buzzard. John Crow.— Fairly common resident. Breeds. Said to have decreased greatly in numbers in the past few years, being preyed upon, like all other ground, and many low tree, builders, by the mongoose,

I quote from Mr. Taylor's notes as follows: "It has been asserted that the John Crow Vulture has suffered severely from the ravages of the mongoose, but in Kingston, at least, I have noticed no apparent diminution in their numbers. In and around Kingston hundreds roost all the year round, and certain favored trees have been resorted to for many years. As their numbers do not appear sensibly diminished, even during those months in which they apparently breed, I have considered that a very large proportion of the birds frequenting the roost at this time must be of the male sex. With respect to the oft-disputed point, sight vs. smell, in the Turkey Vulture, I wish to record one or two cases, coming under my own notice, which seem to me to prove incontestably the use of both senses, as circumstance may require. The dead bodies of poultry, cats, dogs, rats, etc., so frequent in the streets and lanes of the city, are as often as not passed over by the 'Crows' until decomposition has begun. If, however, the object is white or light-colored, it is quickly found. 1 once saw a good instance of this when shooting among the lagoons at the Palisades. In sailing down a narrow channel the boat grounded on a mud bank midway between the shores. A White Heron that had been fishing near the lee shore was shot while we were still aground. The bird had been wading deeply, and fell struggling on the water some little distance from the land, towards which it was drifted slowly by the wind and waves. A Crow almost immediately afterwards came in sight, and after flying round once or twice, alighted on the beach. Soon becoming impatient, the Vulture waded out into the shallow water, and seizing the Heron, dragged it ashore and into the bushes to devour it. Other cases have occurred where the carcases of animals have remained untouched until thoroughly decomposed, and this nearly always happens where the bodies are not wholly exposed. The Crow is certainly not a carrion eater from choice, fresh meat being eagerly taken whenever an opportunity offers, and when sore pressed young and weakly chickens, etc., are taken up."

111. Catharista atrata (Bartr.). BLACK VULTURE.—Recorded from Jamaica by March (Pr. Acad. Nat. Sci. Phila. 1863, p. 151).

112. Elanoides forficatus (*Linn.*). SWALLOW-TAILED KITE. — Recorded from Jamaica by Gosse (Birds of Jamaica, p. 19).

Mr. Taylor sends me this note: "There is a specimen (in a very mangled state) of the Mississippi Kite among the collection of skins in the Museum of the Jamaica Institute, but without any label to show when or where it was obtained."

113. Buteo borealis (*Gmel.*). Red-talled Hawk. — Common throughout the island. Breeds. Seen almost daily at Priestman's River, and frequently in the immediate vicinity of Kingston.

Mr. Taylor's notes are as follows: "The Red-tailed Buzzard appears to be common all over the island, a pair or more may always be seen hovering near pastures and commons and along the slopes of the lesser hills. I know nothing of the nest, but a friend to whom I am indebted for several notes, writes: 'They build chiefly on the huge silk cotton trees, and only rarely on bushes or trees of small elevation,'"

114. Urubitinga anthracina (*Licht.*). MEXICAN BLACK HAWK.—Recorded by Mr. Hill from Jamaica (see Gosse, Birds of Jamaica, p. 19).

115. Falco peregrinus anatum (Bonap.). Duck Hawk. — Not met with. Mr. Taylor says: "I have not met with this Hawk on the mainland, but at the Morant Cays a pair or two were resident. One bird regularly roosted on the tallest cocoanut palm on Southeast Cay. I have an egg in my possession that I can ascribe to no other bird; it was taken from among a number of eggs of the Noddy and Sooty Terns offered for sale in Kingston; whether it was brought from the Morant or Pedro Cays I cannot determine with certainty."

116. Falco columbarius Linn. PIGEON HAWK. — Taken at Priestman's River on January 13 and 19. Both birds were females and these were the only ones obtained. From Mr. Taylor's notes I quote: "A not infrequent bird in the lowlands where it preys upon the Doves and smaller birds as well as lizards and such 'small deer.' Its flight is very swift and darting, but I have never seen it soar and circle like the Red-tailed Hawk. It is resident and breeds, but I have not seen the nest."

117. Pandion haliäetus carolinensis (*Gmel.*). American Osprey.— Noted at various points along the seashore in driving from Priestman's River to Kingston. Mr. Taylor regards it as a rather rare species and says further: "One bird seen near Port Henderson, and at the Morant Cays a pair were seen daily."

The Barn Owl was quite abundant in the vicinity of Priestman's River and in fact anywhere along the coast where there are meadows or fallow fields of much area. On moonlight nights I have seen the birds many times sitting along the road on telegraph poles or on some dead limb. They seem at such times quite fearless, and allow one to walk or ride close by without any attempt at flight. I am unable to be sure of their time of breeding, but think it is probably in October and November.

Subjoined are Mr. Taylor's notes. "The 'Screech Owl' is common wherever it can find suitable shelter. The small caverns and sink holes that are of such frequent occurrence in the limestone formation, as well as the forests of the mountain slopes, are favored haunts. For some time a pair of Owls resorted to the steeple of St. Michael's Church at Rae Town, and are probably there still.

"They often select strange localities for breeding. A pair tenanted for years the partially submerged hull of an old barque that lay at no great distance from the shore of the Palisades, and in the forepart of which they successfully reared their young. Lately I have been told of another pair that nested regularly in the recesses of the iron work under the large bridge crossing the dry river at May Pen in Clarendon and over which trains pass daily."

119. Pseudoscops grammicus (Gosse). Dusky Eared Owl. Brown Patoo. Patoo. — Not quite so common as the last, but still not at all rare in the vicinity of Priestman's River. It frequents the forests more than the Barn Owl does, and I did not meet with it hunting over the

large fields far away from any trees as was the case with the Barn Owl. Specimens were taken on January 14 and 16. Females taken on the latter date were about to lay. A pair taken on February 17 would have bred in about a month. A female parent and young bird just able to fly were taken February 23. The young bird is perhaps two months old. I think that the breeding season varies with different individuals from December to the last part of April. Both this species and the Barn Owl are of the greatest benefit to the agriculturists and they should be most carefully protected. Rats and mice form a large part of the food that they consume, and they must be of especial benefit on the 'pens' and sugar estates. The iris of this species is hazel or dark brown, looking much like that of Syrnium nebulosum.

120. Amazona agilis (Linn.). BLACK-BILLED PARROT. — Common resident in the parish of Portland. Especially conspicuous on the wild orange trees during my stay. They are quite nomadic in their habits, going about in parties of from six to thirty and even more individuals. In a fine series of this species obtained during my stay there are individuals without the scarlet coverts to the primaries. Others have some of these feathers green and some scarlet on the same wing; others lack the scarlet feathers altogether on one wing, but have them all scarlet on the other, and in many individuals the coverts are all scarlet on both sides. The black edging to the feathers of the throat, neck, and head varies greatly in different individuals, in intensity and extent, and in absolute width.

Mr. Taylor has had no opportunity, he tells me, to study this bird in life, and so can add nothing to the foregoing.

Gosse says that both the Yellow-billed and the Black-billed Parrots breed in holes in trees, but he does not state the time of year, and though this is probably in June, I have been unable to ascertain with exactness.

121. Amazona collaria (Linn.). Yellow-billed Parrot. — What I have already said of the occurrence of the Black-billed Parrot in the parish of Portland applies equally well to this species. Just in the vicinity of Boston the Yellow-bills were much the more common, however. The individual variation in these birds is almost entirely confined to a greater or less intensity of color in different specimens, which seems to be correlated with age, but not with sex or season. During my stay at Boston a few hours' walk would always enable one to see flocks of these birds and often a few moments would be sufficient to walk to where a flock fed on the wild orange and other wild fruits and seeds.

Mr. Taylor's notes are subjoined: "Gosse regards this species as less abundant than the 'Black-bill." My own limited experience and the information I have gathered from others does not support that view. At a property near the summit of Mount Diablo, where I stayed for a few days, large flocks of 'Yellow-bills' were seen feeding at the pimento trees. They were always very wary and difficult of approach."

122. Conurus nanus (Vig.). Yellow-Bellied Paroquet.—I did not meet with this species while in Jamaica, where its distribution appears to be quite local, though where it does occur the bird is said to be com-

mon. Mr. Taylor tells me that he has never seen them alive, and that there are but few specimens in the collection of the Jamaica Institute. For a more detailed account of the economy of the species the reader is referred to Gosse, 'Birds of Jamaica,' p. 263, where the species is referred to as C. flaviventer.

123. Ara tricolor (Bechst.)? — There seems to be little doubt that a species of Ara has occurred on the island. It is the general opinion of some of the most intelligent native hunters that I talked with that a large red Parrot has been shot on the island, and that it still occurs at times. This last seems to me very doubtful. Mr. Taylor writes: "Jamaican examples not seen. All the domesticated birds I have seen appear to have been brought over from Cuba." The reader is further referred to the Gosse, 'Birds of Jamaica,' pp. 260-263, where a most detailed account of the occurrence of a species of Ara on the island is given.

(To be continued.)

SUMMER BIRDS OF THE CREST OF THE PENN-SYLVANIA ALLEGHANIES.

BY JONATHAN DWIGHT, JR.

Various observers in the Virginias and the Carolinas have already called attention to the distinctly Canadian tinge of the fauna on the higher mountains of the Appalachian system, but until recently there has been little to show that like conditions prevail at much lower altitudes in the State of Pennsylvania. The present paper not only proves this most conclusively, as regards the bird life, but also brings together for the first time in a list those birds that make their summer home in the mountain region of the State. It is the outcome of two brief visits made at the height of the breeding season to some of the more elevated portions of the mountains.

The first occupied a period from June 18 to June 25, 1890, the localities visited being the vicinity of Altoona in Blair County and that of Cresson in Cambria County, at which latter place most of my time was passed. The second occupied from June 10 to 17, 1891, and this time portions of Luzerne, Sullivan, and